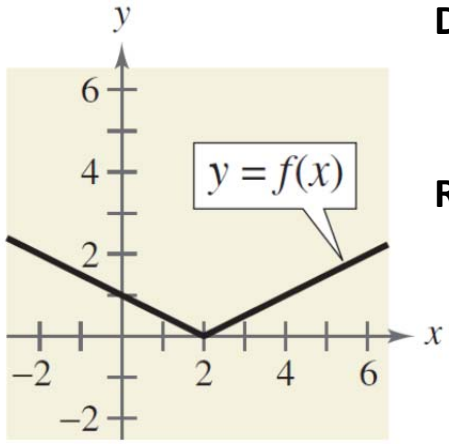
Pg. 54 1.5 – Analyzing Graphs of Functions

The _____ is all the values you can input into a function.

The _____ is all the values that can be output by a function.

Ex 1:
Use the graph of the function to find the domain and range.

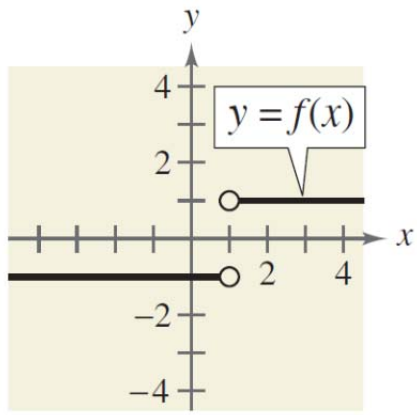
a)



Domain:

Range:

b)



Domain:

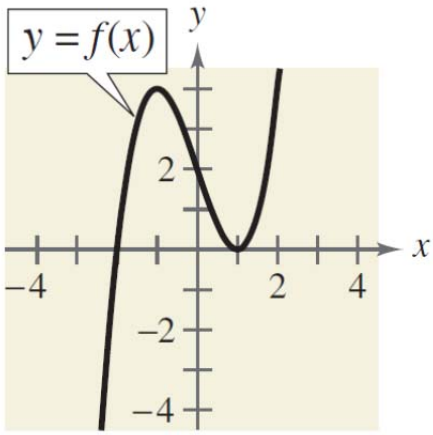
Range:

Ex 2:
Use the graph of the function to find the indicated function values.

a)

(a) $f(-1)$ (b) $f(2)$

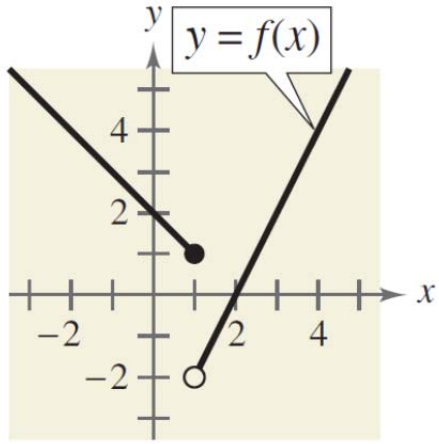
(c) $f(0)$ (d) $f(1)$



b)

(a) $f(2)$ (b) $f(1)$

(c) $f(3)$ (d) $f(-1)$



Ex 3:
Find the zeros of the function algebraically.

a) $f(x) = \frac{1}{2}x^3 - x$

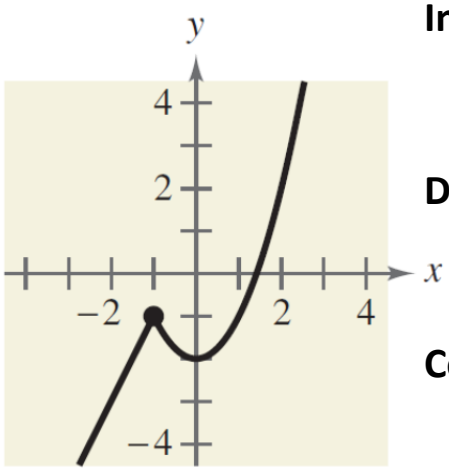
b) $f(x) = 3x^2 + 22x - 16$

A _____ function is a function that consists of parts of one or more functions based on certain restrictions.

Ex 4:
Determine the intervals over which the function is increasing, decreasing, or constant. **Note:** Use x-values to describe intervals.

a)

$$f(x) = \begin{cases} 2x + 1, & x \le -1 \\ x^2 - 2, & x > -1 \end{cases}$$

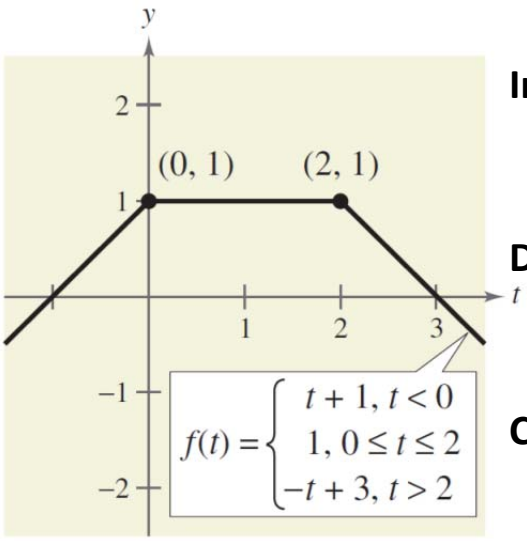


Increase:

Decrease:

Constant:

b)



Increase:

Decrease:

Constant:

Assignment 1.5

Pg. 61 Vocab #'s 1-3 Problem Set #'s 1-37 ODD, 91-95 ODD

Check Answers Pg. A83